

## **4. India's Support for Marine Protected Areas in Antarctica**

**Prelims Syllabus:** Environment

**Mains Syllabus:** GS-III Environment & Biodiversity | Climatic Change Conservation, Environmental Pollution & Degradation, Eia



### **Why in News?**

- India has pledged its continued support for the establishment of two Marine Protected Areas (MPAs) in Antarctica, with the aim of protecting marine life and the ecosystem services that it provides.

### **What are Marine Protected Areas?**

- An MPA is a defined region that is managed for the long-term conservation of marine resources, ecosystem services, or cultural heritage.
- They can be established in national and international waters to preserve the biodiversity of the marine environment.

### **Criteria used for MPAs declaration**

- The International Union for Conservation of Nature (IUCN) has developed a set of criteria for the identification and management of marine protected areas (MPAs). These criteria include:
- **Representativeness:** MPAs should include a range of habitats, ecosystems, and species that are representative of the region.

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- **Biological diversity:** MPAs should conserve a wide range of biodiversity, including species, habitats, and genetic diversity.
  - **Rarity:** MPAs should protect rare, unique, or endemic species or habitats.
  - **Productivity:** MPAs should conserve areas of high productivity, such as spawning and nursery grounds.
  - **Resilience:** MPAs should protect ecosystems that are able to withstand disturbances and recover from damage.
  - **Ecological processes:** MPAs should conserve important ecological processes, such as nutrient cycling and migration patterns.
  - **Connectivity:** MPAs should be connected to other protected areas to allow for the movement of species and genetic material.
  - **Cultural and social importance:** MPAs should consider the cultural and social importance of the area to local communities.

### **MPA in focus: Southern Ocean**

- The Southern Ocean, which encircles Antarctica, covers around 10 per cent of the global ocean and is home to nearly 10,000 unique polar species.
- The ecosystem is an important source of marine resources, including fish and krill, which support commercial fisheries and provide a food source for larger animals.
- Threats to the Southern Ocean and its marine life:
- Climate change is affecting the Southern Ocean, altering habitats such as sea ice and the sheltered seafloor under ice shelves that are home to a variety of species.
- Commercial fishing, particularly for krill (shrimp-like crustacean), is also threatening the ecosystem.

### **Need for an MPA in Antarctica**

- The Southern Ocean needs protection to prevent the further impact of climate change and commercial exploitation.
- A new MPA would help limit human activities, including fishing, mining, and drilling, and help conserve the region's marine resources and unique biodiversity.
- Existing MPAs in the Southern Ocean
- **The Southern Ocean currently has two MPAs:**
  - ✓ In the southern shelf of the South Orkney Islands and
  - ✓ In the Ross Sea

- These MPAs protect only 5 percent of the ocean, with all types of fishing, other than scientific research, prohibited within the southern shelf of the South Orkney Islands MPA.

### **Resistance to proposed MPAs**

- Proposals to establish MPAs in East Antarctica, the Weddell Sea, and the waters surrounding the Antarctic Peninsula have been met with resistance by China and Russia.
- The two countries have a different view than the rest of the members of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), which is an intergovernmental body set up in 1982 to conserve Antarctic marine life.
- India's interest in the commercial exploitation of krill
- India has expressed interest in commercial exploitation of krill in the region.
- However, increased harvesting of krill threatens animals that feed on them, including fish, whales, seals, penguins, and other seabirds.
- Contribution of proposed MPAs to the United Nations 30×30 Framework
- If the proposed MPAs take form in Antarctica, they will contribute to the United Nations 30×30 Framework, which aims to protect 30 percent of the world's land and sea.
- This agreement was reached at the 15th Conference of Parties to the Convention on Biological Diversity in 2022.

### **Conclusion:**

- Most countries have agreed in principle to establish MPAs in Antarctica, and it is expected to be discussed further at the next Antarctic Treaty Consultative Meeting.
- The establishment of MPAs in Antarctica is crucial to preserving the region's marine resources and unique biodiversity, and for contributing to the global